A more particular description of the plant in our figure is as follows. Root fleshy, solid, roundish, depressed, sending out radicles from its under side. In autumn it gives off lateral bulbs near its top, which afford plants for the next year, while the old root decays. Stems several, erect, round, hairy, branching. Root leaves on long petioles, ternate, sometimes quinate; the segments variously cut, lobed and toothed; hairy. Stem leaves sessile, ternate, the upper ones more simple. Flowers several on a stem, solitary, of a bright glossy yellow. Peduncles furrowed, angular, hairy. Calyx leaves oblong, hairy, bent back against the peduncle. Petals five, inversely heart shaped; the nectary at the claw covered with a small wedge-shaped emarginate scale. Stamens numerous, yellow, with oblong erect anthers. Germs numerous with reflexed stigmas. Fruit a spherical head composed of acute, naked, diverging seeds with recurved points.

The roots of Ranunculus bulbosus appear to consist principally of albumen intermixed with ligneous fibres. If the root be macerated in cold water, it gives a solution of this substance, which coagulates in flocks on the application of heat; and undergoes the same process slowly on the

admixture of alcohol. But the most interesting constituent in this, and in most other species, is the acrid principle which pervades every part of the plant in its green state. Like the acrimony of the Arum, it is volatile, and disappears in drying, or upon the application of heat. It differs, however, in not being destroyed by a moderate heat, and in being fully preserved in distillation. I have subjected various species of Ranunculus to this experiment, and always found the distilled water to possess a strong acrimony; while the decoction and portions of the plant remaining in the retort were wholly destitute of this property. This distilled water, when first taken into the mouth, excited no particular effect; but after a few seconds a sharp, stinging sensation was always produced. When swallowed, a great sense of heat took place in the stomach. I preserved some of the water distilled from leaves of Ranunculus repens, for several months in a close stopped phial; during which time it retained its acrimony undiminished. In winter time it froze, and on thawing had lost this property. Tilebein, as quoted by Dr. Pulteney, in some experiments on this genus of plants, found that water distilled from *R. sceleratus*, on cooling, deposited small crystals, which were hardly soluble in any men-

JACOB BIGELOW *American Medical Botany* BOSTON, 1817-1820 CARY GRAPHIC ARTS COLLECTION, ROCHESTER INSTITUTE OF TECHNOLOGY Octavo